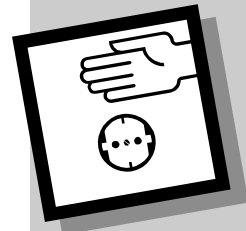

Installation Technology - European Installation Bus (EIB / KNX)

- **Modular training system on the subject of „European Installation Bus (EIB)“**
- **Suitable for demonstrations, but also for desktop experiments**
- **Direct use in the PC lab possible because no special lab desks are necessary**
- **A single-phase socket suffices for the power supply**
- **Integration of conventional installation technology possible**
- **Additionally extendible with EXTENSION BOARD for assembling EIB components on a tophat rail**



**EIB / KNX
Demo Boards**

Series 2410



With the demonstration boards hps SystemTechnik offers a modular training system designed specially for conducting experiments on the subject of „European Installation Bus (EIB)“.

The demonstration boards can be placed on a table or suspended in an hps rack for demonstration purposes.

The inputs and outputs are wired by 4 mm safety jacks.

The bus connection is made by 2 mm jacks.

Special power supplies and lab desks are not required, a single-phase socket suffices.

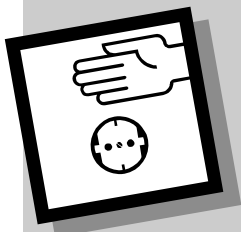
The implemented UP bus couplers and the appropriate EIB components such as the Pushbutton Sensor are always mounted separately on the demonstration boards. This enables direct access to the programming key.

Accessories Required

- **Personal Computer:**
CPU: 1 GHz upwards / 256 MB RAM
operating system for PC: Windows 98/2000/ME/NT/XP,
RS 232 interface, USB interface
- **Connecting Lead RS 232:**
1:1, 9-pin (Type 9102.50)
- **Software ETS and product database**
Experiments manual:
Experiments with the INSTALLATION BOARD -
„European Installation Bus (EIB)“, Type V 0118
- **Bench Rack (Type 8112)** for demonstration experiments
- **Set of Accessories (Type 2410.1)**, for EIB Demo Panels, consisting of connecting leads and plugs

Extension Possibilities

- **EXTENSION BOARD (Type 2402)**
- **Bus Detector (Type 2401.5)**



EIB / KNX Demo Boards

Series 2410

Installation Technology - European Installation Bus (EIB / KNX)

Demonstration Boards for the European Installation Bus

Mechanical data of the Demonstration Boards

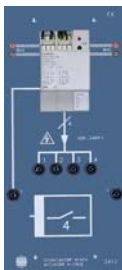
- Material of the front panel: Laminate (5 mm), matt blue
- Rear front: Grey plastic cover (angled)



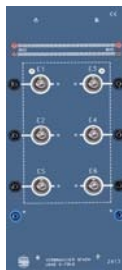
Type 2410



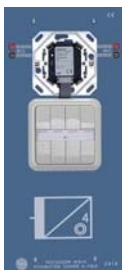
Type 2411



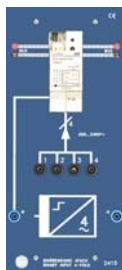
Type 2412



Type 2413



Type 2414



Type 2415

Bus Power Supply Type 2410

For power supply to EIB components;
Mains connection: 230 V AC; 50 ... 60 Hz; 50 VA;
mains output voltage and current: 230 V/3 A, protected by internal fuse 3.15 A;
bus voltage and current: 29 V DC / 640 mA;
with built-in choke; additional voltage tap in front of the choke through 2 mm sockets; display for operation standby and overload by LEDs;
Dimensions: 133 x 297 x 110 mm (w x h x d); Weight: 0.9 kg

Data Interface Type 2411

RS 232; for programming the system with the PC in connection with the ETS software; with UP bus coupler (interface mounted separately);
Dimensions: 133 x 297 x 125 mm (w x h x d); Weight: 0.6 kg

Actuator 4-fold Type 2412

For switching 4 single loads; supply voltage: 230 V AC;
rated voltage and current: 230 V AC/6 A;
Dimensions: 133 x 297 x 110 mm (w x h x d); Weight: 0.8 kg

Load 6-fold Type 2413

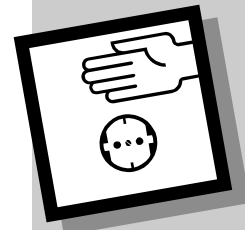
6 lamps E1 ... E6; rated voltage: 230 V AC;
power consumption: approx. 5 W per lamp;
Dimensions: 133 x 297 x 100 mm (w x h x d); Weight: 0.8 kg

Pushbutton Sensor 4-fold Type 2414

4 programmable sensor pairs with programmable LEDs; with UP bus coupler (pushbutton sensor mounted separately from UP bus coupler);
Dimensions: 133 x 297 x 105 mm (w x h x d); Weight: 0.6 kg

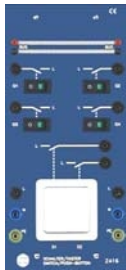
Binary Input 4-fold Type 2415

For converting switching signals (230 V AC) into bus signals;
possible to integrate conventional installation technology;
Dimensions: 133 x 297 x 110 mm (w x h x d); Weight: 0.7 kg



EIB / KNX Demo Boards

Series 2410



Type 2416



Type 2417



Type 2419



Type 2420



Type 2421



Type 2422

Switch/Push-Button Type 2416

4 on/off-switches (Q1 ... Q4) with control LEDs;
2 pushbuttons (S1/S2);
rated voltage: 230 V AC;
Dimensions: 133 x 297 x 100 mm (B x H x T); Weight: 0,7 kg

Info Display Type 2417

For indication of 16 freely configurable bus messages; display of alarm signals, input keys are integrated; up to 5 lines with 30 characters each can be displayed;
Dimensions: 133 x 297 x 100 mm (w x h x d); Weight: 0.5 kg

Temperature Controller Type 2419

For setting up a heating control system close to practice; Temperatures from -4 °C to +45 °C can be set with an integrated potentiometer; Display of the operating status via 5 LEDs;
Dimensions: 133 x 297 x 100 mm (w x h x d); Weight: 0.5 kg

Line-/Area Coupler Type 2420

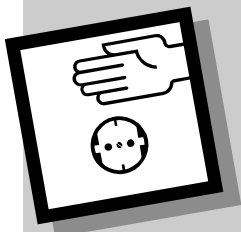
For establishing a secondary line.
Additional use as a backbone coupler or repeater.
With integrated choke to allow supply of the Board directly from the second voltage output of the Bus Power Supply (type 2410).
Dimensions: 133 x 297 x 110 mm (w x h x d); Weight: 0.7 kg

Motion Sensor Type 2421

The motion sensor sends a telegram on the bus whenever it detects a moving object.
Dimensions: 133 x 297 x 110 mm (w x h x d); Weight: 0.5 kg

Combi Sensor Type 2422

Provides brightness and temperature values to be sent as telegrams on the bus.
Dimensions: 133 x 297 x 130 mm (w x h x d); Weight: 0.5 kg



EIB / KNX Demo Boards

Series 2410

Installation Technology - European Installation Bus (EIB / KNX)



Type 2423



Type 2424

Shutter Actuator 2fold Type 2423

For setting up a blinds actuator control, e. g. with the Shutter (type 2425). Up to two blinds can be connected.

Dimensions: 133 x 297 x 110 mm (w x h x d); Weight: 0.7 kg

Dimming Actuator Type 2424

Universal dimmer for dimming electrical loads;

Dimensions: 133 x 297 x 110 mm (w x h x d); Weight: 0.7 kg



Type 2425

Shutter Type 2425

For connection with the Shutter Actuator (type 2423). Integrated limit switches define the end top and bottom positions of the shutter.

Dimensions: 532 x 297 x 110 mm (w x h x d); Weight: 1.5 kg

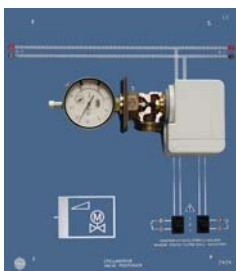
Valve Positioner Type 2426

Demonstration model of a heating valve actuator, for recommended use with the Temperature Controller (type 2419).

For better visualization, the stroke of the valve is picked up by a dial gauge.

Two input ports can be stimulated by two 2 mm jacks each or by a switch.

Dimensions: 266 x 297 x 130 mm (w x h x d); Weight: 1.5 kg



Type 2426

IR Receiver Type 2427

Programmable pushbutton with built-in IR receiver.

UP bus coupler (sensor is mounted to the UP bus coupler separately)

Dimensions: 133 x 297 x 125 mm (B x H x T) Weight: 0.6 kg

Data Interface USB Type 2429

Data interface USB, for programming the system with the PC in connection with the software ETS3.

Dimensions: 133 x 297 x 125 mm (B x H x T) Weight: 0.6 kg



Type 2427



Type 2429

Subject to technical modifications.